

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)							February 2003				
BUDGET ACTIVITY 3 - Advanced technology development				PE NUMBER AND TITLE 0603007A - Manpower, Personnel and Training Advanced Technolo							
COST (In Thousands)				FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
Total Program Element (PE) Cost				3077	7663	4931	7158	6854	7033	7095	7193
792	PERSONNEL PERFORMANCE & TRAINING			3077	4422	4931	7158	6854	7033	7095	7193
79A	ARMY TRAINING SUPPORT CENTER			0	3241	0	0	0	0	0	0
<p><u>A. Mission Description and Budget Item Justification:</u>The objective of this program element (PE) is to develop and demonstrate advanced soldier-oriented technologies to enhance soldier and unit performance in the Army's transformation to the Objective Force. A key goal of this program is the reduction of training and other personnel costs through the development of effective training strategies that incorporate appropriate mixes of live, virtual, and constructive simulations. Research and development (R&D) efforts include designing new ways to efficiently develop collective training; developing and demonstrating prototype training methods and programs that improve mission performance; devising training strategies using distributed training technology to conduct multi-site training, assessment, and feedback; and evaluating the effectiveness of compressed gunnery training strategies for the Reserve Component. R&D will also design innovative methods and technologies to develop effective leaders for small team operations and for developing Battle Commanders for the digitized battlefield. Work in this program element is consistent with the Army Science and Technology Master Plan, the Army Modernization Plan, and Project Reliance. This PE is managed by the U.S. Army Research Institute (ARI) for the Behavioral and Social Sciences. The cited work is consistent with the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and Project Reliance. The program element contains no duplication with any effort within the Military Departments. This program supports the Objective Force transition path of the Transformation Campaign Plan (TCP).</p>											

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<u>B. Program Change Summary</u>	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	3093	3527	8391	9698
Current Budget (FY 2004/2005 PB)	3077	7663	4931	7158
Total Adjustments	-16	4136	-3460	-2540
Congressional program reductions				
Congressional rescissions		-476		
Congressional increases		4800		
Reprogrammings	-4	-44		
SBIR/STTR Transfer	-12	-144		
Adjustments to Budget Years			-3460	-2540

Change Summary Explanation:

Significant Adjustments:

FY04 and FY05 funds realigned to higher priority requirements.

FY03 Congressional Adds:

(\$1400) Aircrew Coordination Training, Project 792; (\$3400) Army Training Support Center Education Training, Project 79A.

Projects with no R-2A:

Army Training Support Center Education Training, Project 79A, (\$3241): The purpose of this one year Congressional Add is to develop enhanced training technologies for use at Army Training Support Centers. No additional funding is required to complete this project.

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COST (In Thousands)				FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
792	PERSONNEL PERFORMANCE & TRAINING			3077	4422	4931	7158	6854	7033	7095	7193
<p><u>A. Mission Description and Budget Item Justification:</u>The objective of this program is to develop and demonstrate advanced technologies to enhance performance to ensure that the "human component" of warfighting keeps pace with the transformations in systems, weapons, equipment, and requirements to meet the goals of the Objective Force. A key goal of this program is the reduction of training and other personnel costs through the development of more effective training strategies that optimize the advantages of live, virtual, and constructive simulations. Advanced technology development efforts include designing new ways to efficiently develop collective training methods and materials; developing and demonstrating training methods and programs that improve mission performance; devising strategies to use distributed training technologies to conduct multi-site training, assessment, and feedback; and evaluating the effectiveness of compressed gunnery training strategies for the Reserve Component. This program also develops leader development tools that capitalize on the various synthetic environments, game technologies, and delivery media (web, PDA, etc), that facilitate the advancement of leader knowledge, skills, and abilities (KSAs), and that can provide “experiences” to leaders earlier in their career development cycle. This program will develop self-development tools that do not currently exist that enable leaders to take full advantage of their schoolhouse experiences, that develop cognitive flexibility, and that accelerate the preparation of leaders for their next level of assignment; and will design innovative methods and technologies to improve leader decision-making, develop effective leaders for small team operations, and prepare Battle Commanders to operate within the evolving technological complexity envisioned for Objective Force operations. Work in this program element is consistent with the Army Science and Technology Master Plan, the Army Modernization Plan, and Project Reliance. This PE is managed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI). The PE contains no duplication with any effort within the Military Departments. This program supports the Objective Force transition path of the Transformation Campaign Plan (TCP).</p> <p>This program does not contain Defense Emergency Response Funds (DERF).</p>											

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<u>Accomplishments/Planned Program</u>		FY 2002	FY 2003	FY 2004	FY 2005	
Training: In FY02, (1) evaluated new methods for more effective use of the Internet as a training delivery mode; (2) evaluated current training approaches for their relevance to training soldiers on the projected requirements for future operations; and (3) completed development and evaluation of new simulator technologies for training aircrew coordination. In FY03, generate guidelines and techniques for enhanced use of Web-based methods for individual and small group instruction; evaluate existing training techniques and tools for training unit-of-action level forces using virtual simulation experiments; and investigate the amount of simulator training needed to reach proficiency for live-fire qualification on small arms. In FY04, determine the best combination of simulator and live-fire training to maximize small arms marksmanship proficiency; develop prototype training support packages and conduct trial implementations to expand/refine the C4ISR training techniques and collective performance measurement approaches; and conduct research on the best use of on-line peer tutoring for enhancing digital skills. In FY05, conduct research on on-line game collaborations for advanced individual instruction; develop prototype tools to manage and adapt training for multiple unit requirements, delivery platforms, and systems.		2236	1914	2308	1916	

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<u>Accomplishments/Planned Program (continued)</u>			<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Leader Development and Personnel Performance: In FY02, (1) identified the coaching and mentoring strategies used by effective leaders in developing cohesive teams; developed an Internet information resource on Active Component (AC) and Reserve Component (RC) operational and cultural differences to assist leaders with combining AC/RC soldiers into effective teams; and conducted the annual assessment of the Army command climate. In FY03, will develop and pre-test scenarios and role plays designed to help leaders train and develop team members and assess team performance. In FY04, will develop and evaluate an interactive simulation tool for developing versatile thinking in battle commanders and develop realistic Objective Force scenarios for facilitating the development of leader knowledge, skills, and abilities (KSAs); develop mentoring programs or tools that help mid-level unit leaders train and assess leadership skills and adaptability in their subordinates; and investigate tools and methods for leaders to use to improve unit climate and teamwork. In FY05, explore existing game and virtual strategies and technologies for their applicability and effectiveness in leader development and training; investigate methods to improve automation of real-life behaviors of a mentor/coach to increase individualization and remediation and to provide realistic interactions in synthetic environments; explore methods of automating assessment measures to determine the degree to which actual learning has occurred; and determine the most effective methods for leaders to use that will allow them to establish and maintain a positive unit climate and develop unit cohesion in times of personnel turbulence, stress, and changing operational requirements.			841	1108	2623	5242
Army Aircrew Coordination Training: The objective of this one-year Congressional Add is to complete the development of enhanced training and skill sustainment tools, both Web and simulation-based, for enhancing aircrew coordination training. No additional funding is required to complete this project.			0	1400	0	0
Totals			3077	4422	4931	7158